Remote Access Solution

RT1-series

Secure Remote Access Solution for Maintenance Services

SiteManager is a security certified Remote Access Solution that ensures unified, uninterrupted and secure access to remote industrial equipment.

The RT1-series SiteManager operates in the Secomea's Prime Platform, ensuring efficient maintenance, cost savings, and increased production output.

RT100 SiteManager series is a robust, DIN mountable industrial gateway that you install in machine control panels to provide remote access for on-demand, real-time servicing of industrial equipment.

• Security certified and built-In firewall
• Troubleshooting and remote programming of the complete range of Omron Automation System
• Service ready Device to improve responsiveness, reduce the impact of emergencies, optimise the workload of engineers and maximise machine availability and productivity
• Minimised environmental impact and increased sustainability by reducing Travels for Machine maintenance

Overview of Gateway Units

The SiteManager is a remote access gateway (hardware) that is installed in the field. The LinkManager is a communication software for remote access from your personal computer in a remote location to a device placed in the field. The Secomea's Prime Platform is a cloud service (M2M server) to remotely connect the SiteManager and the LinkManager via the internet.
You can build a secure remote access environment via the internet to remotely access from Sysmac Studio on your personal computer to an NJ/NX-series Machine Automation Controller in a remote location, by using the SiteManager, GateManager, and LinkManager.
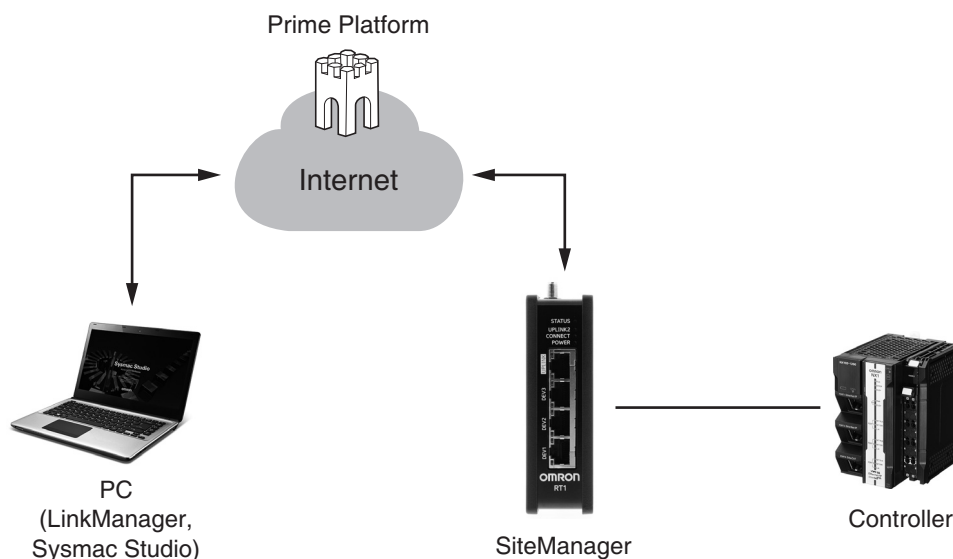
All SiteManager models are equipped with a data collection module function (DCM). SiteManager becomes an IoT gateway, and it is possible to collect data from industrial equipment without any program and securely transfer the data to the IoT cloud service.

Furthermore, by using the LogTunnel function, it is possible to transfer data directly from a remote industrial device to a SCADA / MES / ERP server or other data server. In this case, it is necessary to install SiteManager on the server side as well.
Log Tunnel and DCM functions require subscription to "Professional" package.
Upgrading or downgrading packages is done through Secomea Prime platform.

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Architecture & Key features

Connect multiple IIoT devices simultaneously

Connect up to 10 devices of all types of industrial equipment via Ethernet using the equipment's native protocols.

Persistent store-and-forward database

Integrated Flash memory extends the RAM based store-and-forward database to ensure data integrity for not only loss of Internet access, but also power-loss.

Collect data from industrial equipment

Collects data from industrial devices via e.g., Modbus, OPC UA and send the raw data for further data analysis and processing to your chosen cloud solution such as Azure, AWS, etc. DCM function requires subscription to "Professional" package.

Drag & drop SCADA tunnelling setup

LogTunnel provides secure static tunnel connections and seamless integration to a central SCADA system which operates concurrently with other services, such as on-demand access control and data collection.
Log Tunnel requires subscription to "Professional" package.

Easy & firewall friendly Internet access

Enable secure connectivity to the Internet through the firewall of the existing wired network infrastructure and wirelessly by 4G/ LTE Global modem or via WiFi.

Safety compliance via digital ports

Digital input allowing operator control of remote access, e.g. via a physical switch, and digital output for signaling active access sessions, e.g. via a light-tower.

Ordering Information

SiteManager

Product description	Integrated 4G	Integrated WiFi	No. of Device Agents	Model Number
SiteManager LAN	No	No	10	**RT100-EMM3010**
SiteManager 4G Global	Yes (Global)	No	10	**RT100-4GM3010-G**
SiteManager 4G JP	Yes (JP)	No	10	**RT100-4GM3010-J**
SiteManager WiFi	No	Yes	10	**RT100-W5M3010**

Note: Communication Services necessitate a subscription to Secomea Prime, provided by Secomea.

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Specifications

Electrical Properties		• Input 12 to 24 VDC, via screw terminals
		• Network Interfaces: 4 x 10/100 Mbit
		• Ethernet (1 x UPLINK, 3 x DEV,) - RJ45 connection
		• 1 x USB 2.0 full speed (Host)
		• 1 x RS232 DB9 Serial port with full flow control
		• Power consumption: max 5 W excl. any optional USB devices
		  (Calculate with a total of 8 W incl. USB devices)
		• 2 x digital input ports
		• 1 x output relay (max 0.5 A), 1 x digital output open drain (max 0.2 A)
		• Micro SD card slot for DCM store-and-forward
		• SiteManager 4G models only: Integrated broadband modem with external standard
		  polarity female SMA connector and Micro SIM push-pull slot
		• SiteManager WiFi models only: Integrated WiFi module with (IEEE 802.11 b/g/n/ac)
		  2.4/5 GHz support and external female RP-SMA connector

Regulations*1	**Europe**	CE, UKCA
	North America	FCC 47 cfr part 15
	Japan	Giteki
	Korea	KC
	General	RoHS, REACH
4G Global Modem specs (SiteManager 4G models)	**LTE bands**	B1 (FDD 2100) IMT, B2 (FDD 1900) PCS B3 (1800 +) DCS, B4 (1700) AWS B5 (850) CLR, US Korea etc. B7 (2600) IMT-E B8 (900) E-GSM, B12 (700) US, B13 (700c) USMH, LSMH US, LSMH US, B18 (800 or 850) Japan #4, B19 (800 or 850) Japan #5, B20 (800) Digital Dividend, B25 (1900 G Block), B26 (850+) Extended CLR, B28 (700 APT) APAC B34 (TDD), B38 (TDD 2600) IMT-E, B39 (TDD 1900 +) China, B40 (TDD 2300) China, B41 (TDD 2500) BRS/EBS, B66 (TDD)
	WCDMA/UMTS band	B1 (2100) IMT, B2 (1900) PCS, B4 (1700) AWS-1 B5 (850) CLR, B6 (850) Japan #1, B8 (900) E-GSM B19 (800) Japan
	GPRS/EDGE bands	B2 (1900), B3 (1800), B5 (850), B8 (900)
	Modem Certifications *2 / Carriers	US/North America: FCC, PTCRB, IC (AT&T, Rogers) China: CCC, CTA, TA (NCC) Europe: CE RED, GCF Japan: Jate, Giteki, Telec (Via MVNO carriers, NTT Docomo, au/KDDI, Soft-bank. For connection to direct subscriptions to these carriers, you may need the region specific SiteManager 4G JP model)
Physical Properties	**Operating temperature**	-25 to 60°C (-13 to 140°F), 5% to 95% RH
	Storage temperature	-40 to 60°C (-40 to 140°F), 5% to 95% RH
	Dimensions, unpacked (H×W×D)	107 × 32 × 97 mm (4 1/5 × 1 1/4 × 3 4/5 inch)
	Weight	500 g
	Housing	Metal case, IP20, DIN mountable
	Operating altitude	up to 2000 m
	Storage altitude	up to 3000 m

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Networking Capabilities		• Choice of Uplink (WAN) Internet access: - Ethernet, - SiteManager WiFi models only: Integrated WiFi in Client or AP mode - SiteManager 4G models only: Integrated Cellular modem • Choice of Uplink IP-assignment mode: DHCP client, PPPoE client, manual/static • Telnet to Serial routing (rfc2217). Siemens MPI/PPI is supported via an adapter • DHCP server on Device LAN by Ethernet or as access point via WiFi • USB port for remote accessing USB-enabled devices (directly or via USB hub) • Support for remote access by any UDP/TCP based protocol including Layer 2 • LogTunnel support for easy setup of remote SCADA logging infrastructure
Monitoring and Logging Features		• System log with System Watchdog • Automatic event logging on GateManager • SiteManager 4G models only: Bi-directional SMS Gateway support via Serial AT commands and UDP/TCP script commands • Advanced trouble-shooting functionality for automatic discovery of networking conflicts and configuration issues
Configuration and Management		• Easy configuration with pre-defined configuration using a USB stick • Appliance Launcher for easy initial contact and connection to GateManager™ • Configuration and maintenance of SiteManager™ via browser (HTTPS/SSL . local or remote from GateManager™) • Includes a Setup Assistant Wizard for guided configuration via the Web GUI • Configuration backup management (via GateManager™), including scheduled backup and fast hardware replacement (cold backup) • Configuration export and import (XML) • Pre-defined Device Agents for easy setup of access to PCs, web devices and PLCs and HMIs. • Unique device scanning feature for automatic detection of IP and USB devices and configuration with a single click
LED Signalling and I/Os		• 4 LEDs for signalling Power, Status, Wireless uplink status and LinkManager connection • Digital input port for site operator control of remote access • Digital or Relay output for signalling active LinkManager connections, and GateManager connection status • Configurable digital input port for custom Email/SMS alert triggering • Output port for custom toggling from the SiteManager GUI
Integrated Data Collection Module DCM	**Collector protocols (Ethernet)**	Modbus, OPC UA, http get (json, xml etc.)
	Data Server (Cloud) protocols	AWS, Azure, Cumulocity, Alibaba/Aliyun
	Edge computing capabilities	• Aggregations (avg, max/min, compute etc.), • Event triggered alarms
	Store and forward capacity	• 80 MB internal Flash • +64 GB via inserted SD memory card (not included)

*1. Ask your OMRON representative for the most recent applicable standards for each model.
*2. Certifications apply to the embedded modem, and may not apply when combined with SiteManager.

LinkManager Requirements

Item	Requirement
Operating system (OS)	Windows 10
Browser	Google Chrome/Microsoft Edge **Note:** Use HTTPS (TCP port number: 443 fixed) to communicate with GateManager.

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Part Names and Functions

RT100

Front   Top   Bottom
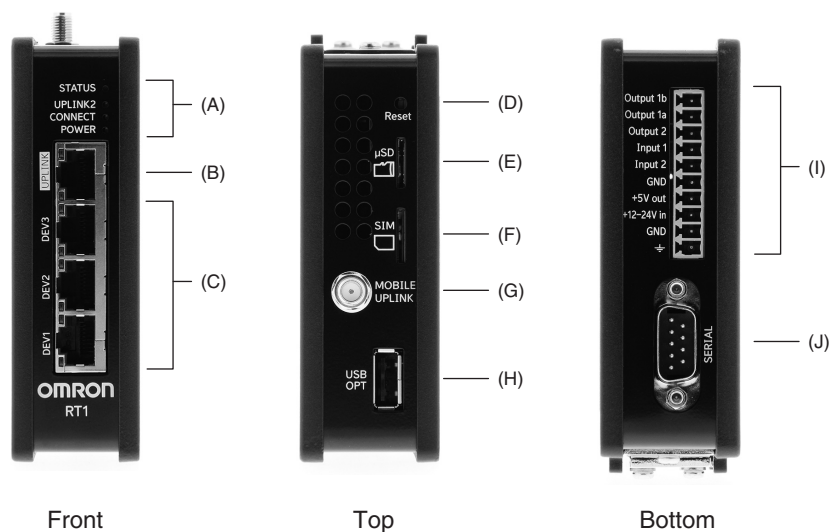
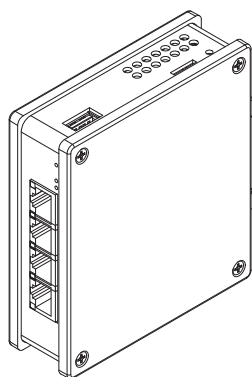| Letter	Name	Function
(A)	Status indicators	The indicators show the current operating status of the unit.
(B)	UPLINK port	This port is used for internet LAN connection.
(C)	DEV1 - DEV3 ports	These ports are connected to the NJ/NX Controller and personal computer via Ethernet cables.
(D)	Reset switch	The reset switch is used to initialize the hardware.
(E)	Slot	This slot is for an SD card.
(F)	Slot	This slot is for a SIM card. SIM size: Micro SIM **Note:** A standard SIM and Nano SIM cannot be used. (SiteManager 4G Global/JP model only)
(G)	Connector for antenna	This connector is used to connect an internet 4G antenna or a WiFi antenna. (SiteManager 4G Global/JP model and WiFi model only)
(H)	USB port	This port is used for USB communication.
(I)	DC input terminals	The terminals are used to connect power supply. The input terminal block is provided with the SiteManager.
(J)	RS-232C port	This port is used for serial communication.

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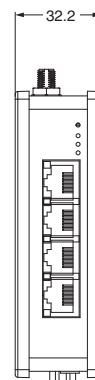
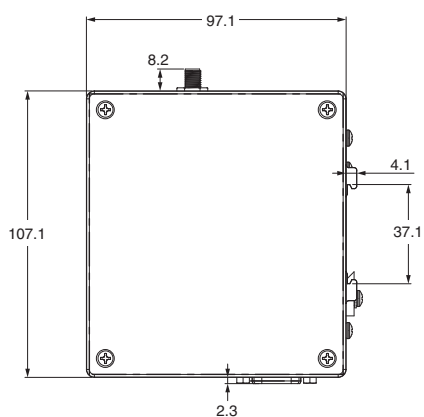# Dimensions (Unit: mm)

Main Units

RT100-EMM3010 **RT100-4GM3010-G** **RT100-W5M3010**
RT100-4GM3010-J

97.1

8.2

4.1

107.1

37.1

2.3

32.2
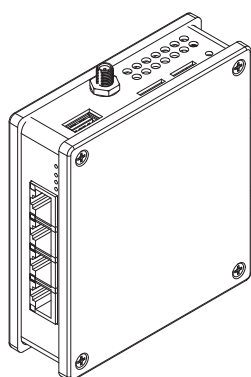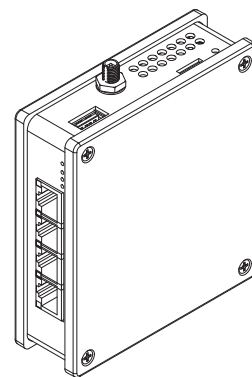
Antenna
RT100-4GM3010-G
RT100-

135.6±3

114.8±2

20.1±2

9.8 dia.
10.1 dia.

90°

RT100-W5M3010

108±1

88

9.3±0.05 dia.

7.8
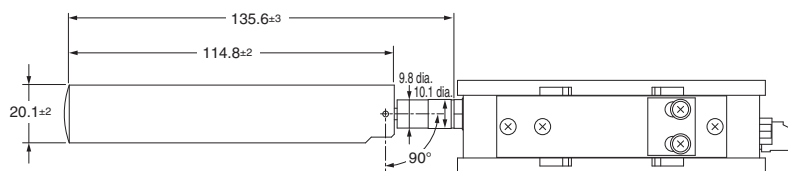
90°
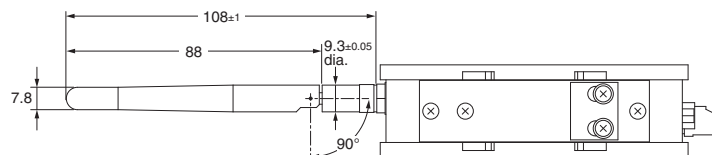
Related Manuals

Manual name	Cat. No.	Model
Machine Automation Controller NJ/NX-series Startup Guide Remote Access	P151	RT1 NJ/NX SYSMAC-SE2@@@
Sysmac Studio Version 1 Operation Manual	W504	SYSMAC-SE2@@@
NJ-series CPU Unit User's Manual (Hardware)	W500	NJ501-@@@@ NJ301-@@@@ NJ101-@@@@
NX-series CPU Unit User's Manual (Hardware)	W535	NX701-@@@@
NX-series NX502 CPU Unit Hardware User's Manual	W629	NX502-@@@@
NX-series NX102 CPU Unit Hardware User's Manual	W593	NX102-@@@@
NX-series NX1P2 CPU Unit User's Manual (Hardware)	W578	NX1P2-@@@@@@ (1)

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The RT1-Series Remote Access solution is a brand labeled product that is developed by Secomea. Secomea is a leading manufacturer of industrial communication equipment with a strong focus on security and usability of the products.

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